1046-05-1749   **Christoph Koutschan*** (`ckoutsch@risc.uni-linz.ac.at`), RISC, Johannes Kepler University, Altenberger Str. 69, 4040 Linz, Austria. *Towards a proof of the q-TSPP conjecture.*

The study of totally symmetric plane partitions (TSPP) has attracted the attention of famous combinatorialists for years. While the conjectured formula about the number of TSPPs was proven in 1995 by Stembridge, its q-analog (conjectured by Andrews and Robbins) is still open and one of the most outstanding problems in enumerative combinatorics. We demonstrate how computer algebra methods can be used in order to tackle this kind of problems. (Received September 16, 2008)